PRESENTATION TO THE

# NATURE CONSERVANCY PARTNERSHIP CONFERENCE

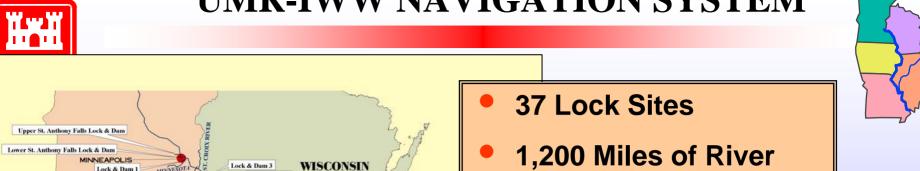
ECOSYSTEM RESTORATION
RECOMMENDATIONS

Upper Mississippi River - Illinois Waterway
System Navigation Feasibility Study

KEN BARR ROCK ISLAND DISTRICT
USACE
NOVEMBER 16, 2004

#### **UMR-IWW NAVIGATION SYSTEM**





Lock & Dam 4

DUBUQUE

Lock & Dam 15

Lock & Dam 16

Lock & Dam 17 Lock & Dam 18

Lock & Dam 19

QUINCY

Lock & Dam 24

MISSOURI

Lock & Dam 25

ST. LOUIS

CAPE GIRARDEAU

Lock & Dam 20

Lock & Dam 21

Lock & Dam 22

Lock & Dam 6

Lock & Dom 7

Lock & Dam 9 Lock & Dam 10

Lock & Dam 11

Lock & Dam 12

DAVENPORT

Lock & Dam 14

La Grange Lock & Dam

ILLINOIS

Mel Price Lock & Dam

Lock 27

Peoria Lock & Dan

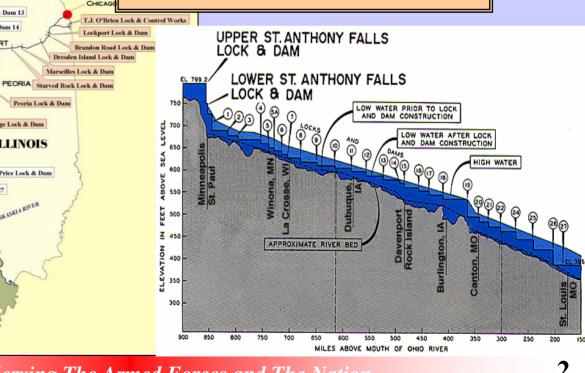
Lock & Dam 2

Lock & Dam 5A LA CROSSE

IOWA

MINNESOTA

- **Significant Ecosystem** (2.5 million acres)
  - Constructed 1930-45

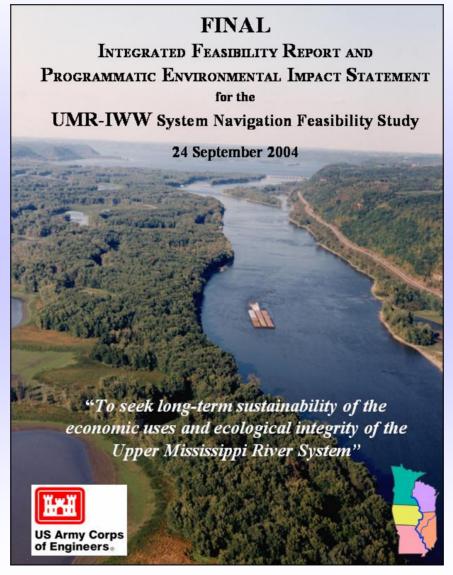




### INTEGRATED FEASIBILITY REPORT

### AND PEIS





## RECOMMENDED INTEGRATED PLAN

**Dual Purpose Plan - Seek approval of an** integrated plan that serves as a framework for modifications and operational changes to the Upper Mississippi River and Illinois Waterway System to provide for navigation efficiency and environmental sustainability, and to add ecosystem restoration as an authorized project purpose.



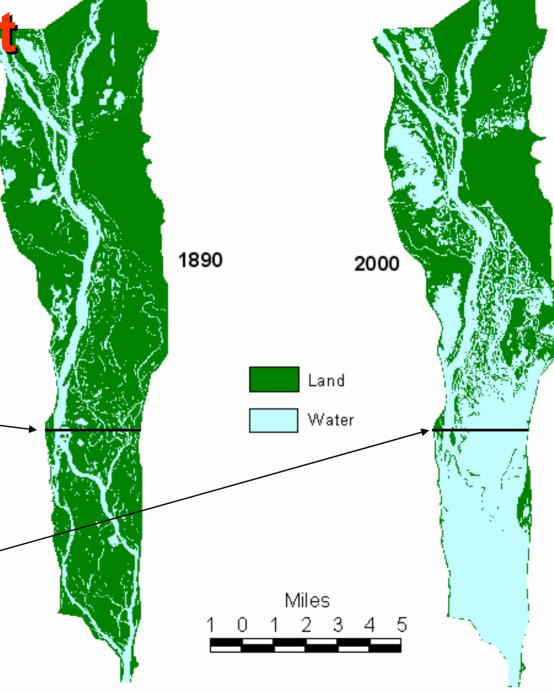
### RECOMMENDED DUAL PURPOSE PLAN

- \$2.4 Billion Navigation Efficiency Framework
- \$5.3 Billion Ecosystem Restoration Framework
- Adaptive Implementation
  - ✓ Nav. Eff. 15 yr increment = \$1.88 B
  - ✓ Eco. Rest. 15 yr increment = \$1.46 B
  - ✓ Decision Checkpoints at 3, 7, and 15 yrs.



Impoundment & Loss of Diversity





### **Loss of Island Habitat**





October 1961

August 1994



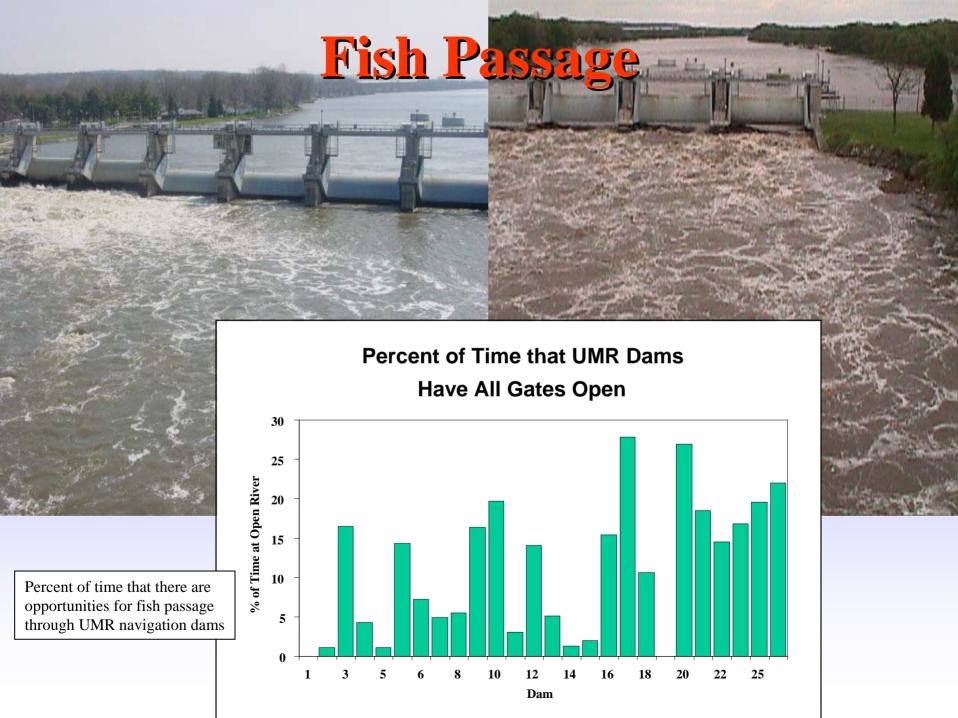
### **ECOSYSTEM RESTORATION**

#### **MPLEMENTATION**



(\$1.4 billion in First 15 years)

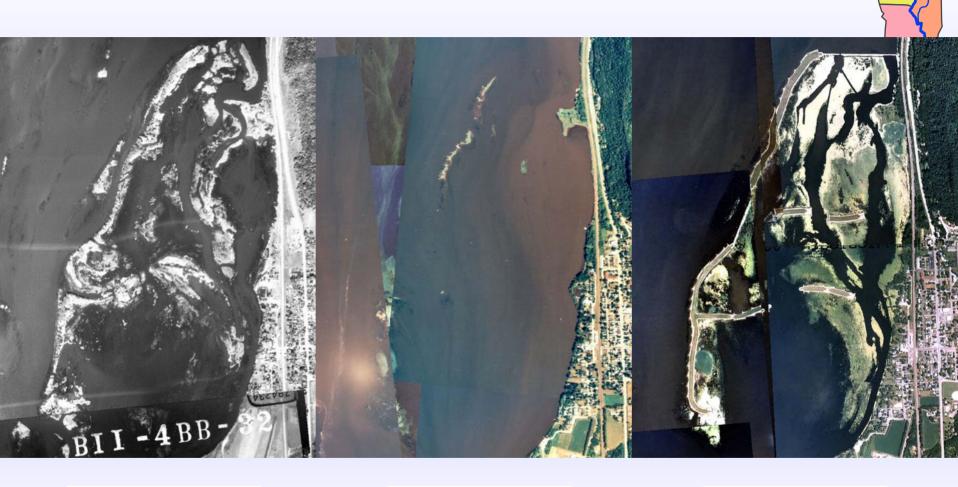
- Fish Passage @ Dams 4,8,22, and 26 (\$209 mil)
- Changes in Water Level Control @ Dams 25 and 16 (\$41 mil)
- Adaptive Implementation of 225 small projects of less than \$25 million each (\$935 mil)
  - Island Building
  - Water Level Management
  - Backwater/Side Channel Restoration
  - Wing Dam/Dike Alterations
  - Island Shoreline Protection
- 35,000 Acres of Floodplain Restoration (\$277 mil)
- Continued Study and Monitoring
- Next Increment







### Island Building



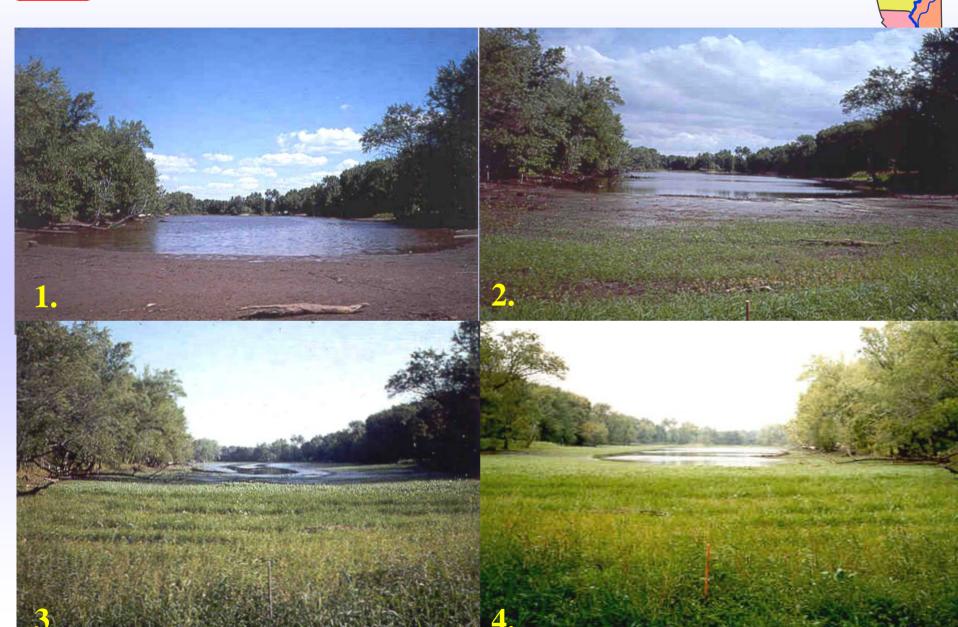
October 1961

August 1994

August 2000



## Water Level Management





### **Side Channel Restoration**







### **C**OLLABORATION

























(PUBLIC)

NGO's



Decision Framework for Ecosystem Restoration and Management

Modify models and/or monitoring

Research and development











